

respect our technical civilization reserves for matters which it does not understand." Our knowledge of the origins of weeds and crops is really minimal, in spite of the orderly looking Latin names. In a fascinating chapter, entitled "The Clue from the Root Tips," Anderson shows us how by counting chromosomes order may begin to be made out of the present chaos in ethnobotany, and this is where the yellow primrose (*Primula kewensis*) comes in as a handy example. By the time Anderson is finished with this charming hybrid the reader will have in his grasp the clue to the solution of some of the problems of economic and uneconomic botany, not to mention ethnobotany.

To give you some idea of the fascination of this subject consider the peanut (*Arachis hypogaea*). The peanut in its most primitive form has little shoestrings attached to it. Such peanuts are found in pre-Columbian Peruvian tombs; they are not today grown in Peru, but they are grown in South China. How did they get there? Its a nice problem, and nobody knows the answer. Well, there's a fruitful statement of ignorance. Anderson supplies us with a whole orchard full of such statements, particularly in his valuable chapter in which he gives us a roster of our most important crop plants and their probable origins.

Throughout there are scattered priceless gems of knowledge and a goodly number of pithy apothegms, all of which combines to make this quite a book, such a book as one will not have the good fortune to encounter again for a long time. This is the sort of volume which will bear reading several times, each time with increasing profit. The line drawings illustrating the text are beautifully clear, and there is a brief annotated list of suggested readings.

#### LITERARY I.Q. ANSWERS

1. "The Congo," by Vachel Lindsay.
2. Afton, from "Afton Water," by Burns.
3. Weser, from "The Pied Piper," by Browning.
4. Missouri, from "Jessie James," by William Rose Benet.
5. Thames, from Prothalamion," by Spenser.
6. Avon, from "Mr. William Shakespeare," by Jonson.
7. Alph. from "Kubla Khan," by Coleridge.
8. Nile, from "Antony and Cleopatra," by Shakespeare.
9. Eske, from "Lochinvar," by Scott.
10. Spoon, from "Lucinda Matlock," by Edgar Lee Masters.
11. Lethe, from "Ode to a Nightingale," by Keats.
12. Iser, from "Hohenlinden," by Thomas Campbell.
13. Dee, from "The Sands of Dee," by Charles Kingsley.
14. Potomac, from "All Quiet Along the Potomac," by Ethel Lynn Beers.
15. Oxus, from "Sohrab and Rustum," by Arnold.

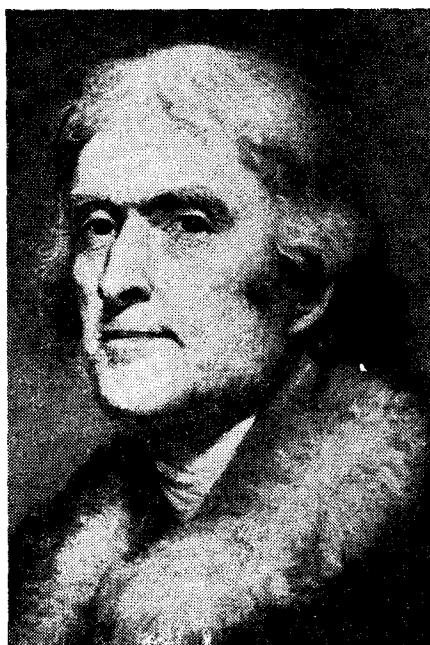
## Presidential Polyhistor

THOMAS JEFFERSON: SCIENTIST.

By Edwin T. Martin. New York: Henry Schuman. 289 pp. \$4.

By I. BERNARD COHEN

THE title on this book is at once engaging and misleading. It attracts our attention because we have always been told that Jefferson did "something or other" in science, but it is not an appropriate title since the book demonstrates that Jefferson was not a scientist. Mr. Martin has painstakingly examined all the published Jefferson material and the very large number of secondary studies dealing with particular scientific interests of Jefferson. The result is an impressive portrait of a man of the "Enlightenment," who had "sworn upon the altar of God eternal hostility against every form of tyranny over the mind of man," and who saw in natural science the major force that would liberate the mind from the age-old tyrann-



—Bettmann Archive.

Jefferson—"a careful observer."

nies of ignorance and superstition. Like others of his day Jefferson held that science would also improve the physical condition of man, and he sought useful applications of science in all areas, but chiefly in applied biology or agriculture. His most important scientific feat was in combating the current French theory, held

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by Buffon, that animals and plants "degenerated" in the New World.

Like Franklin, Jefferson was an inventor and gadgeteer, but there the resemblance ends. Franklin made a fundamental contribution to pure science which is recognized the world over, and we still do him honor whenever we use the words that he introduced into electrical discourse, such as plus and minus, or positive and negative, electric battery, and so on. Had Franklin never entered the arena of political affairs, he would still be remembered as an important scientist of the eighteenth century. But Jefferson made no such fundamental contributions to science and our interest in "Thomas Jefferson: Scientist" derives wholly from our concern with "Thomas Jefferson: Political Philosopher and Statesman."

The question of the effect of scientific background or interest on the actions of political leaders is not without interest. We may surmise that Teddy Roosevelt's enthusiasm for a kind of natural history may have been related to his advocacy of conservation measures; but how was Garfield's policy related to his previous experience as a geometry teacher, or Hoover's to his having been a mining engineer? Did Jefferson behave in any way peculiar to a man well educated in the science of his day and who kept up as well as he was able with the scientific developments of his day? Unfortunately, Mr. Martin does not answer this question; indeed, his book may be described as informative, but not illuminating. The one point where Jefferson's scientific interests and political actions met—in the Lewis and Clark expedition—is hardly discussed.

Mr. Martin's book should prove of value to anyone who wishes to know in what areas Jefferson's scientific curiosity led him, how much he actually knew, and what he read. Details are provided concerning his many inventions and his ideas about the usefulness of science in the Baconian sense. There can be no question but that science was a dominant passion for Jefferson and that he took pride in his scientific accomplishments, such as they were, and that he was a careful observer and made accurate measurements. Mr. Martin devotes separate chapters to such subjects as inventions, paleontology and geology, meteorology, and the "degeneration" controversy. Jefferson emerges from his pages with added stature—as a better educated man than we might have thought and as one who, through his love of science, represented the "Enlightenment" at its highest.

## Science Notes

**THE STARS: A New Way To See Them.** By H. A. Rey. Houghton Mifflin. \$4. "This book is meant for people who want to know just enough about the stars to go out at night and find the major constellations, for the mere pleasure of it." The introductions of most popular-science books include equally clear statements of purpose, but H. A. Rey's "The Stars" is one of the few that completely fulfils its good intentions. By the process of never forgetting his aims or his readers (and the book is certain to have a large and enthusiastic audience), the author has produced a beautiful, original, and fascinating guide to stargazing.

Of course, it isn't quite as simple as that. Mr. Rey is a "one-man band" as far as popularizing skills are concerned. He is an amateur astronomer and an excellent illustrator; furthermore, he writes in an entertaining and informal manner. But, above all, he knows how to impart technical information by organizing it and then teaching one thing at a time. The book first describes the major star-grounds in a series of fifteen constellation charts which differ radically and refreshingly from conventional charts. They contain only the information needed for observing purposes (star-maps are often cluttered with confusing detail), and the shapes in the skies are drawn so that they can be recognized. Clean-cut match-stick figures are substituted for fancy drawings that would strain the flexible imagination of a Polonius.

Having described the constellations, Mr. Rey proceeds to the more difficult task of telling where and when they can be located. A dozen specially prepared calendar charts, including dates and times as well as the exact part of the sky to be watched, solve this problem as effectively as the constellation charts solve the problem of recognition. A final section goes into the how and why of elementary celestial mechanics and is based on another series of illustrations, three-dimensional models of the heavens which explain the motions of the earth and stars. "The Stars" is the best book available for its purpose. It is also a brilliant—and most reasonably priced—example of the combined use of art and writing in bringing science to the layman.

—JOHN PFEIFFER.

**SCIENCE AND HUMANISM.** By Erwin Schroedinger. Cambridge University Press. \$1.75. This stimulating and clearly written book focuses attention on a strange state of affairs in our  
(Continued on page 38)

**Fiction.** Three, it seems, is a useful number in cataloguing both men and books. In a provocative article beginning on page 6, Edgar Ansel Mowrer separates the human race into three types, with the future of civilization as we know it resting on what he calls "The Third Man." In the review below, Shirley Barker, herself an historical novelist of note, divides that most popular of fictional forms into three and finds that Bruce Lancaster's rattling good story of espionage during the Revolutionary War belongs in her second group—i.e., for two-fisted men. (Miss Barker's own books, we should add, fall into her third group.) Mr. Lancaster's novel and "Tales of Adventurers," Geoffrey Household's collection of short adventure stories, will both make good hammock companions for many males this summer. . . . Fiction fanciers fond of spotting promising new literary talent should look hopefully into George Williams's "The Blind Bull" (page 19) and Clara Winston's "The Closest Kin There Is" (page 20).

## Hunting Down History

**THE SECRET ROAD.** By Bruce Lancaster. Boston: Little, Brown & Co. 259 pp. \$3.50.

By SHIRLEY BARKER

THREE ways are open to the historical novelist picking up his pen today, and whichever way he chooses he will have readers, for Americans are curious about their past as a country—eager, perhaps, to escape into it for reassurance. He—or more often she—may belong by both taste and artistic capacity to what is known as "the plunging neckline school," and use history merely to season and color a lusty sex drama. He—and this writer usually will be he—may prefer to write the virile, two-fisted tale with much pistol play, swift-paced as a gangster movie, chaste and pure in its romance. The third group work with greater art and higher seriousness, and never lose sight of the fact that their first duty is to present a record of human emotions that are universal, their second to place it against the background of its time and interpret that time.

Bruce Lancaster is one of our successful practitioners of the second group. His favorite hunting ground is the period of the American Revolution. He has gone back to it and brought home to us a lively story of the secret service operating out of Manhattan, along the Sound, and across to Connecticut during 1780, when both sides are squaring off and

maneuvering into place for the final round at Yorktown the next year. Its hero, Lieutenant Grant Ledyard, escaping from British capture, is picked up by Robert Townsend, key man in the Continental spy ring, and sent across Long Island to Setauket by the famous "secret road," Washington's main artery of information. He goes into the service of Major Tallmadge in Fairfield, finds himself in exciting difficulties on nearly every page—which are never too much for him, if sometimes a little too much for the reader, takes a leading part in uncovering the Arnold-Andre treason, and arrives on the last page, safe and planning his wedding.

Mr. Lancaster has used the right historical sources well and lovingly. He is really excited about this phase of Revolutionary history, and he communicates his excitement. His pictures of Townsend and Andre—real men—are careful and convincing, and the finest things in the book. He is not so interested in his fictional characters. Rosa's eyes are blue on page 53 and green on page 241 because Rosa is really not important. Also, to describe Alexander Hamilton as "a fine-looking man" leaves us a little unsatisfied, since if he is to appear at all he deserves a more accurate portrait.

But the book has value because it brings authentic history to the impatient reader who will never take it a slower way. Its blending of real figures with imaginary ones is skilfully done, and if it underplays its great moments—such as that evening on the Sound when a trick turns the British fleet back from Newport—that is perhaps in keeping with the spirit of the patriots who watched the event; and as such is a fitting thing.

Shirley Barker is the author of two novels with an American historical background and the recently published book of poetry "A Land and A People."